



Petroleum Development Oman L.L.C.

January 2006

Report: CP-123

**E.R. Documents Part I
Emergency Response Management System**

Keywords:

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Authorised For Issue January 2006:

Version 3.0	Document Owner: UID	Document Holder: UIC	Document Custodian: UIC/4
January 2006	Unit Infrastructure Director	HSE, Corporate Emergency & Security Manager	Corporate Emergency Management Coordinator

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Version 3.0	January 2006	UIC/4	General update to maintain document currency and reflect organisational changes
Version 2.0	November 2003	TTS	General update to maintain document currency and to reflect recent organisation changes
Version 1.0	January 2000	CSM/4	Update of Reference Indicators
Version 0	January 1998	CSM/4	Document Development

Terminology:

In the documents of the PDO Emergency Response Management System the following words are used to express the level of requirement for actions described within the text:

Shall, Will	:	Means mandatory. Such actions must be followed
Should	:	Means strongly recommended
May	:	Means acceptable and to be considered

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1 Introduction

1.1 Background

PDO is committed to maintaining an effective Emergency Response Management System (ERMS) to respond to emergencies and to minimise consequential losses.

1.2 Purpose

This document is the top level document in a suite of emergency response documents. It defines the structure of the emergency response management system in PDO, and describes the various elements that make up the ERMS.

1.3 Target Audience

This document is targeted at management, stakeholders and those in the organisation who are responsible for managing emergency response. It does not give detailed guidance on how the emergency response system is to be used. This is explained in Parts II, III and IV of PDO emergency response documentation.

This document is available via 'Livelink' and via the Emergency Response page on the PDO Web. Users not having access to the PDO Web can obtain a hard copy from the document Custodian.

1.4 Document Ownership and Maintenance

Document Owner

The Document Owner is the Unit Infrastructure Director (UID). UID is responsible for:

- Approval of this Document
- Ensuring the Emergency Response Management System is fit for purpose in maintaining recovery systems across PDO activities as required by HEMP and the Emergency Response policy statement.

Document Holder

The Document Holder is the HSE, Corporate Emergency & Security Manager (UIC). As Holder, UIC is responsible for:

- Systematic reviews of the Emergency Response Management System.
- Participation in audits as the principal auditee.

Document Custodian

The Document Custodian is the Corporate Emergency management Coordinator, UIC/4. UIC/4 is responsible for document maintenance. This includes:

- Implementing review and update of the document
- Ensuring updates are communicated to users
- Day to day implementation of the ERMS
- Planning and executing emergency response exercises

1.5 Document Structure

This document follows the fundamental management system elements covered below.

- i. Leadership and commitment
- ii. Policy and objectives
- iii. Organisation, responsibilities, resources, standards and documents
- iv. Hazards and effects management
- v. Planning and procedures
- vi. Implementation, Monitoring & Corrective action
- vii. Audit & Review

2 Leadership and Commitment

2.1 Leadership

The ultimate accountability for the health and safety of all staff, contractors and other personnel engaged on PDO business, rests with the Managing Director. Responsibility for co-ordinating the management of emergency response is delegated through the Managing Director's Committee (MDC) via the Unit Infrastructure Director, UID.

2.2 Commitment

Managing Director's Committee

In demonstrating commitment to emergency response, PDO Managing Director's Committee (MDC) is responsible to provide strategic direction for the development and implementation of the Emergency Response Management System. MDC is comprised of PDO Directors and is chaired by the Managing Director.

Directors and senior managers also participate in emergency response weekly duty rota as Duty Directors of the corporate emergency coordination team.

Corporate Emergency Response Unit

The HSE, Corporate Emergency & Security Manager (UIC) is the position established to provide advice on emergency response activities and to coordinate implementation of the emergency response management system.

UIC manage the emergency response activities of the line operational departments and serves as the communication channel between the line and the Management Directors Committee (MDC). Day to day implementation of the emergency response management system is delegated to the corporate emergency management co-ordinator, UIC/4.

UIC also regularly reviews aspects of emergency response within the Company with regard to the environment in which the Company operates. UIC is responsible for identifying required improvements, and for providing advice and support to Management and the asset teams.

3 Policy and Objectives

3.1 Emergency Response Policy

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Emergency Response Policy

It is PDO's Policy to:

"Manage emergencies in all its activities and where possible, assist third parties and co-operate with external emergency services".

The response to any emergency shall focus on the following priorities:

- **Saving life and avoiding injury to PEOPLE (P)**
- **Protecting the ENVIRONMENT (E)**
- **Limiting damage to ASSETS (A)**
- **Preserving PDO's REPUTATION (R)**

And assist in the return to normal operations in the shortest possible time.

The Impact of this Policy is:

- PDO shall provide appropriate organisation, facilities, procedures and competent personnel to enable immediate action to be taken to manage emergencies in its operations.
- Emergency response plans and procedures shall satisfy the requirements of the laws of the Sultanate of Oman.
- Systematic testing of the emergency response system shall be conducted regularly to verify effectiveness, and any identified improvements implemented promptly.
- Mutual emergency aid arrangements shall be maintained with Government and external organisations.
- Contractors shall be required to and manage emergency response in line with this policy.

The Purpose of this Policy is to:

- Minimise loss through the implementation of an effective risk management recovery process.
- Effectively manage business resumption following unplanned disruption of activities.
- Provide assurance to stakeholders of PDO's commitment to manage emergencies in its operations.

John Malcolm
Managing Director
December 2002



3.2 Key Performance Criteria

In order to achieve compliance with the Emergency response policy statement, PDO has identified the following key performance criteria:

- Maintenance of an effective emergency response organisation & provision of resources
- Adequate emergency response facilities in each area
- Competent and trained personnel to be available
- Appropriate emergency response documentation to be in place
- A systematic program of testing with learning feedback to be implemented
- PDO Contractors to manage emergency response in line with the emergency response policy.

4 Organisation, Responsibilities, and Resources

A key feature of PDO's response to an emergency is a four tiered system (site or operational, local, corporate and strategic) of On Scene Commander(s), Local Emergency Control Team(s), a Corporate Emergency Co-ordination Team managed by a Duty Director and Managing Director's Committee (MDC). The Duty Directors are vested with the authority of the PDO Managing Director to mobilise any required resources (*internal or external*) to assist the Local Emergency Base Controller and his team.

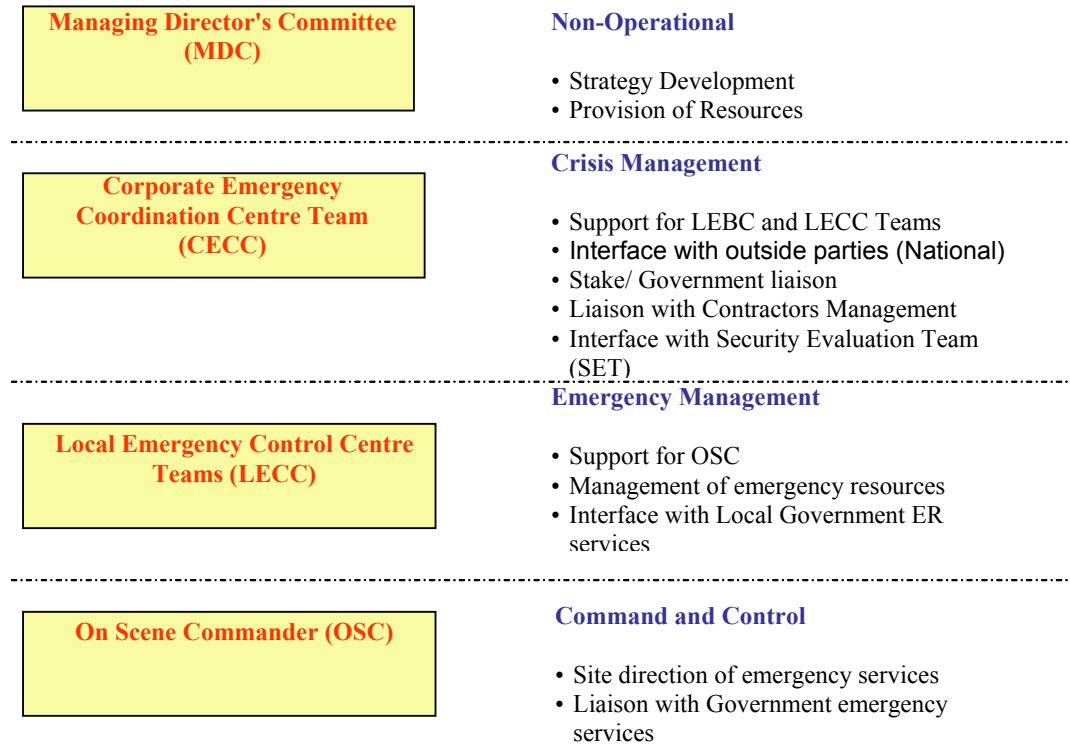


Figure 1: Organisation and Resources

4.1 Organisation

4.1.1 Managing Director's Committee (MDC)

The Managing Director's Committee (MDC) is comprised of PDO Directors and is chaired by the Managing Director. MDC shall conduct a quarterly review meeting includes the Health, Safety, Environment, and Sustainable Development Manager (MSEM) and HSE, Corporate Emergency & Security Manager (UIC). Part of this meeting agenda is reviewing ERMS to ensure that the Policy, Organisation, Resources, Systems, and Documentation for emergency response are always commensurate with the environment in which the company operates.

The Terms of Reference (TOR) for the MDC review of ERMS is attached as Appendix C.

4.1.2 Security Evaluation Team (SET)

PDO operates an escalating Alert Phase system based on guidelines provided by the Shell Group. These Alert Phases are linked to business operations to ensure continuity between reduction and evacuation of personnel, and the needs and priorities of the business. The Alert Phase system is managed by a Security Evaluation Team (SET), which is chaired by MD with UID as deputy.

SET structure, roles and responsibilities are detailed in:

 **Contingency Evacuation Procedure PR-1502**

4.1.3 Corporate Emergency Response Organisation

Strategic directives of the ER&SSC are delegated to the Unit Infrastructure Director (UID) and cascaded through the HSE, Corporate Emergency & Security Manager (UIC) to the Corporate Emergency Management Coordinator (UIC/4).

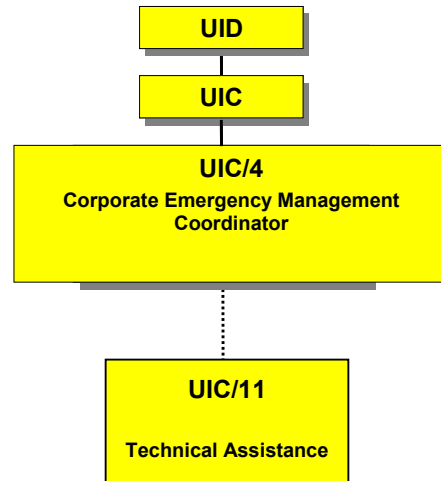


Figure 2: Corporate Emergency Response Organisation

4.1.4 Corporate Emergency Response Unit

UIC as HSE, Corporate Emergency & Security Manager is responsible for:

- Development and maintenance of the corporate emergency response management system, and to ensure Company wide consistent application and co-ordinated implementation in the Asset Teams.
- Maintenance of Corporate Emergency Response Documentation.
- Providing advice and support to Management and to the Asset Teams on matters of emergency response.
- Ensuring a programme of training courses, drills and exercises is in place to assure the competence of all emergency response staff. To monitor the learning points from these events and ensure that they are disseminated to all relevant parties.

4.1.5 Corporate Emergency Coordination Team

PDO maintains a corporate emergency coordination team managed by a Duty Director. The corporate emergency coordination team is made up of representatives from the North and South oil directorates, the Unit Infrastructure directorate, Human Resources, Media Representative and Corporate Health, Safety & Environment department. All team members are on call 24 hrs a day and are required to carry a duty pager.

The corporate emergency coordination team is directly supported by a Personnel Centre team and Press Centre team and can call on technical support teams depending on the nature of the emergency.

The primary role of the CECC is to coordinate Company and External resources and place them at the disposal of the Local Emergency Teams. The CECC will also address all external communications relating to the emergency.

Detailed structure, roles and responsibilities of the Corporate Emergency Coordination Team and its Technical Support Teams is available in:

 **ER Company Procedure Part II PR-1065**

Local Emergency Control Teams

A fundamental element of the PDO ERMS is the establishment of eight 'Local Emergency Control Teams' in each of the Company's main operating areas managed by Local Emergency Base Controllers, (LEBC's).

Local Emergency Control Centres (LECCs) are established in the following operating areas:

- Lekhwair
- Yibal
- Fahud
- Qarn Alam
- Bahja
- Nimr
- Marmul
- Muscat (Mina al Fahal)



Each LECC team is managed by a competent LEBC. LEBCs have the authority and are responsible for the management of the field Emergency Response. In principle, the LECC closest to an area where an emergency situation has occurred will provide the first line of response. The LECC team is made up of representatives from Operations, Engineering, Telecommunications, Supply and Logistics, Estate Services and Human Resources. It is the responsibility of the LEBC to appoint and support an On Scene Commander (OSC).

Detailed structure, roles and responsibilities of the Local Emergency Control Teams is available in:

 **ER Company Procedure Part II PR-1065**

4.1.6 On Scene Commander

On Scene Commander is a term applied to the person managing the on site emergency actions. The OSC reports directly to the LEBC. Following mobilisation, the LEBC in the affected area will appoint a trained On Scene Commander based on experience and familiarity with the emergency site or process. In the initial phases of an emergency however, the LEBC may be forced to manage through any PDO or contractor employee at the emergency scene. This person is not normally referred to as an On Scene Commander.

4.1.7 Fire Services

PDO maintain fire fighting resources at each of the operating areas in the interior and on the coast at Mina Al Fahal. PDO fire teams are trained and certified to provide airfield fire support services and are also trained first aiders.

4.1.8 Medical Services

All areas have clinics and trained nurses with PDO doctors based in Marmul and Fahud. In Nimr, Qarn Alam and Fahud, contractor doctors are also available in PAC (Permanent Accommodation for Contractors) and co-opted to participate in emergency response. Additionally, rigs and some contractor camps have medics and clinics. Details of medical resources available, doctors, nurses and ambulances may be referenced in:

 **Emergency Response Documents Part IV Guideline GU-288**

 **Part III Volume 13 Medical Emergencies PR-1243**

4.2 Resources

4.2.1 Corporate Emergency Coordination Centre

The Corporate Emergency Coordination Team operates from a dedicated Emergency Coordination Centre (CECC) at MaF. The CECC is situated in the computer building in Room # CC-010. Supplementing the CECC room are a telecommunications room and an emergency support room for technical support teams. Detailed layout and content of the CECC can be referenced in:

 **Emergency Response Documents Part IV Guideline GU-288**

In the event of unavailability of the CECC for whatever reason, back up facilities with the same communication capabilities are available in the MaF LECC in the Terminal building.

4.2.2 Local Emergency Controls Centre(s)

There are eight dedicated Local Emergency Control Centres (LECC) throughout the PDO concession and MaF. Each LECC has communications and emergency information display facilities. In case of unavailability of any of the LECCs, the LEBC for the area will quickly provide an alternative location from where to manage the emergency. Detailed layout and content of the LECCs can be referenced in:

 **Emergency Response Documents Part IV Guideline GU-288**

4.2.3 Press Centre

The Press Centre is located in the Al Tayf complex (near Supply building) in the PDO head office. The media responder team is mobilised by the HXM duty officer in the CECC. The media team assembles and then constitutes the Press Centre. The Oil and Gas Exhibition Centre is used for press conferences, briefings, media interviews and to house any media personnel that may arrive at MaF.

4.2.4 Personnel Centre

A personnel centre is maintained in Grey 017 (Team Leader) and Grey 011 (Team) offices in the PDO head office. The Team Leader is mobilised by the HR representative in the CECC or can be mobilised by the Emergency Telephone Operator (ETO) on instructions of the Duty Director. The team is mobilised by the Team Leader and comprises both Arabic and English speaking sub-teams.

In the event of unavailability of the Press Centre or Personnel Centre, the centre Team Leader will provide an alternative location, from where they will continue to perform their roles, and inform the CECC accordingly.

4.2.5 Communications Containers & Mobile VSAT

Three mobile VSAT units for Coastal area, South operations, and North operation are maintained by UIIN. VSAT units are fixed in Land Cruisers, which are ready to be mobilised to the emergency site at any time. In addition, four self contained communications containers are maintained by UIIN and are positioned at Nimr, Bahja, Fahud and MaF. The communications trailers are mobilised on flat bed trucks to the site of prolonged emergencies to serve as command and control centres for On Scene Commanders and subsequently for emergency recovery / business continuity team leaders.

4.2.6 Emergency Call Out

PDO maintains seven emergency call out locations. These are situated in the Central Control Rooms of Marmul (covering Marmul and Nimr), Bahja, Qarn Alam, Fahud, Yibal, Lekwair and the radio room in MaF. Emergency Telephone Operators (ETOs) or CCR operators are available at these locations 24 hrs per day. Emergency calls placed via the PDO telephone network are routed to the nearest CCR or the Emergency Telephone Operator in MaF. Emergency calls placed from the national telephone network will be routed to the MaF ETO.

4.2.7 Communications

In the event of loss of the PDO telephone network, back up communication facilities are available via radios, GSM's and satellite communications and Tetra radios. Current satellite communication equipment includes Inmarsat and hand held 'Thuraya' dual GSM / Satellite units.

5 Hazards and Effects Management

5.1 Emergency Response and Risk Management

Emergency Response is the fourth and final stage of the risk management process. Recognising that with all diligence, incidents still occur, the 'Recovery' stage of the risk management process seeks to minimise the consequences of incidents.

5.2 Hazards, Risks and Recovery

5.2.1 Hazards

PDO's assets and related activities are situated in environments each having their own set of hazards. Major hazards in PDO operations and activities are identified in the asset HSE cases. In general the major Hazards involve a loss of integrity leading to a release of hydrocarbons but also include road transport, aviation transport, Hydrocarbon (HC) pipelines and marine HC loading activities, etc.

5.2.2 Risks

While the ERMS is designed to cope with escalating scenarios resulting from the release of a major hazard, it is most commonly implemented to minimise the consequences of accidents arising from the major risks identified in HSE Cases. These major risks are of minor to medium criticality ranking and would typically include occupational accidents, personnel lost in the desert, operational (e.g., blow out), road traffic accidents, and third party accidents.

5.2.3 Recovery

The PDO response priorities to any emergency are unambiguously stated in the emergency response policy. The policy requires firstly safeguarding or minimising loss of life or injury to personnel. Only when this priority has been addressed will the issues of protection of the environment, assets and company reputation be addressed.

6 Documentation

6.1 Structure and Hierarchy

PDO has a comprehensive range of emergency response documentation. An up to date listing can be found on the PDO Emergency Response Website through the PDO web home page.

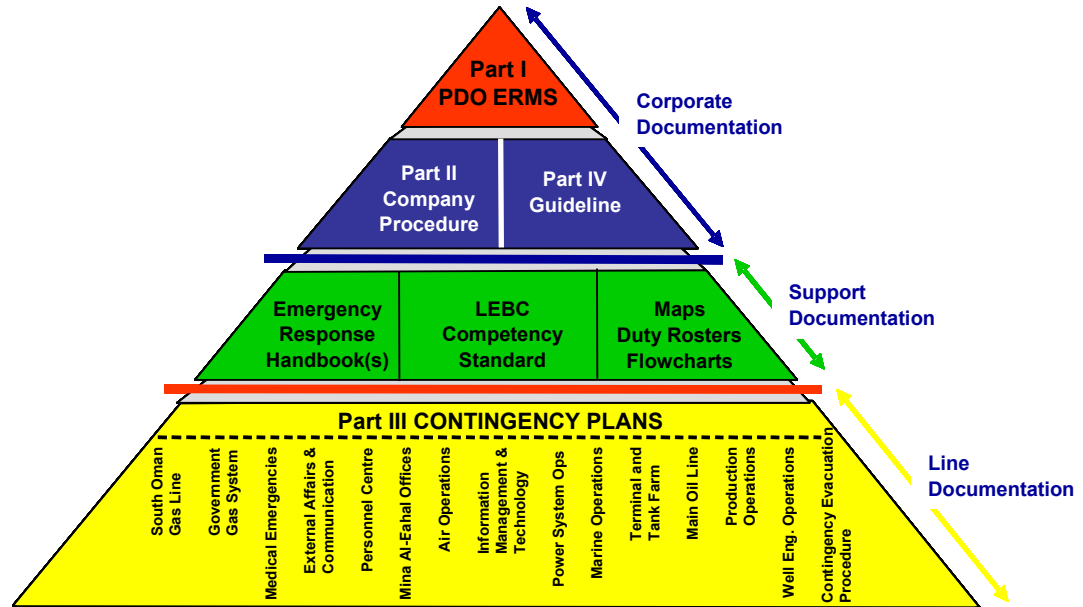


Figure 3: Documentation Structure and Hierarchy

6.2 Document Maintenance

6.2.1 Ownership

Document owners are accountable for the maintenance of their procedures and ensuring they remain up to date and fit for purpose.

Vol	Document	Owner	Vol	Document	Owner
	Top Level Documents			Contingency Plans	
	📖 Part I ERMS	UID	5	📖 Terminal and Tank Farm Ops	UIT
	📖 Part II Company Procedure	UID	6	📖 Marine Operations	UIT
	📖 Part IV Guideline	UID	7	📖 Power Systems Ops - Interior	UIE
	Support Documentation		8	📖 Information Management and Technology	UII
	📖 Emergency Response Handbook	UIC	9	📖 Air Operations	UWL
	📖 LEBC Competency Standard	UIC	10	📖 Mina Al-Fahal Offices	UIB
			11	📖 Personnel Centre	HD
	Contingency Plans		12	📖 External Affairs & Communications	HXM
1	📖 Contingency Evacuation Procedure	MD	13	📖 Medical Emergencies	MCC
2	📖 Well Engineering Operations	UWD	14	📖 Government Gas System	GD
3	📖 Production Operations	UOP	15	📖 South Oman Gas Line	UIP
4	📖 Mail Oil Line	UIP		📖	

Table 1 Document Owners

6.2.2 Document Holders

Document Holders are responsible for:

- The technical accuracy of the document
- Ensuring update, review and revision of the document not later than every 2 years, and communicating same to users.

6.2.3 Document Custodians

Document Custodians are responsible for implementation of document maintenance. This includes:

- Implementation of review and update






















Vol	Document	Custodian	Vol	Document	Custodian
	Top Level Documents			Contingency Plans	
	 Part I ERMS	UIC/4	5	 Terminal and Tank Farm Ops	UIT/3
	 Part II Company Procedure	UIC/4	6	 Marine Operations	UIT/4
	 Part IV Guideline	UIC/4	7	 Power Systems Ops - Interior	UIE/3
	Support Documentation		8	 Information Management and Technology	UIIP
	 Emergency Response Handbook	UIC/4	9	 Air Operations	UWL/13
	 LEBC Competency Standard	UIC/4	10	 Mina Al-Fahal Offices	UIC/1
			11	 Personnel Centre	HRO/4
	Contingency Plans		12	 External Affairs & Communications	HXM/2
1	 Contingency Evacuation Procedure	UIC/4	13	 Medical Emergencies	MCO/1
2	 Well Engineering Operations	UWD/1	14	 Government Gas System	GGO/1
3	 Production Operations	UOP/1	15	 South Oman Gas Line	UIP/31
4	 Mail Oil Line	UIP/31			

Table 2 Document Custodians

7 Implementation

7.1 Emergency Duty

PDO maintains two Emergency Duty Rosters for personnel based on the coast. These rosters address manning requirements for the Corporate Emergency Co-ordination Team and the Coastal Local Emergency Control Centre Team.

The objective of the duty roster(s) is to ensure that at all times there is a minimum number of personnel, drawn from selected disciplines, and available to react to an emergency situation.

It is not a requirement for interior locations to maintain duty rosters as the shift regime operating at the locations guarantees a minimum available staffing level to perform emergency duties. It is a requirement however that at least one qualified LEBC is available at all times in the manned locations to react to an emergency.

CECC Duty Roster

The CECC duty roster is compiled and maintained by UIC/4. It operates on an eight week cycle and is available on the PDO web through the following link:

<http://sww1.pdo.shell.com/dept/tsd/ttm/TTS/ER%20Duty%20Rota/CECC%20ROSTER.doc>

It is a requirement that any person submitted for the CECC roster has attended the appropriate training as defined in section 7.3.

Coastal LECC Duty Roster

The Coastal LECC duty roster is compiled and maintained by UIC/11. It operates on a five week cycle and is available on the PDO web through the following link:

<http://sww1.pdo.shell.com/dept/tsd/ttm/TTS/ER%20Duty%20Rota/LECC-Coastal.xls>

It is a requirement that any person submitted for the LECC roster has attended the appropriate training as defined in section 7.3.

Mobilisation Requirements

Interior personnel are required to mobilise and be available in the LECC within 10 minutes of call out.

Coastal duty roster staff are expected to be able to man the emergency rooms within 30 minutes of being paged by the ETO. This limits the movement of emergency duty roster staff to the area defined between Al Bustan and Seeb. Duty staff are expected to be fit and maintain a sober state of mind at all times while on the duty roster.

7.2 Call Out

Call out of duty teams is through a 'Block Pager' call out initiated by the Emergency Telephone Operator or Control Room Operator. The pager system is the primary means of emergency mobilisation and duty roster members carry their pagers with them at all times while on duty. Telephones and GSM's serve only as back up to the pager system. All duty persons in CECC and Coastal LECC are expected to carry the company duty pagers and GSM's (switched on 24 hrs).

Authority for the call out of the CECC team members lies with the Duty Director. On being informed by the LEBC or the ETO of an emergency situation, the Duty Director will instruct the ETO to initiate the block pager call out.

Call out for the LECC team members is initiated by the LEBC via the ETO or area control room operators (CCR).

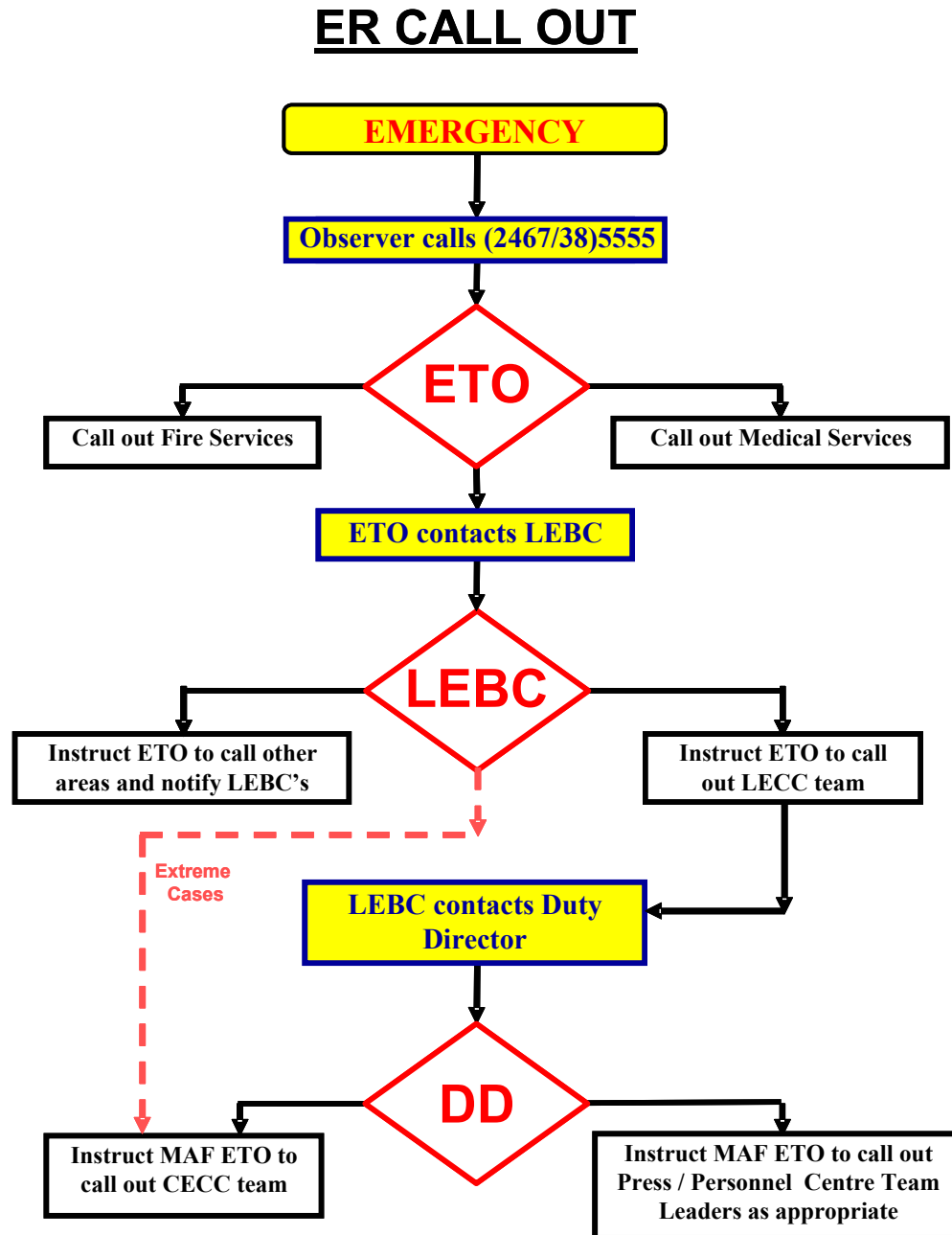


Figure 4: Emergency Response Call Out

7.3 Training

To maintain the required level of competence in emergency response it is essential that the knowledge and awareness of personnel is of an adequate standard. For the majority of personnel, this constitutes knowledge of emergency telephone numbers and initial actions to take. This information is imparted to staff during their induction training and is reinforced in an emergency response booklet.

For Key personnel in positions of responsibility for emergency response management, formal training is a requirement of the ERMS. Briefing and Training marked with an asterisk is a pre-requisite to taking up a role on the duty emergency roster. Key personnel requiring training are:

Key Position	Training	Duration	Refresher
Duty Director & CECC Team Members	Briefing* Workshop*	2 hrs 1 Day	2 yrs
Local Emergency Base Controller	Briefing* Workshop*	2 hrs 1 ½ Day	2 yrs
LECC Team Members	Briefing* Workshop*	2 hrs 1 ½ Day	2 yrs
On Scene Commanders	Briefing* Workshop*	1 Day	2 yrs
Emergency Telephone Operators	Workshop	½ Day	1 yr
Press Centre Training	Workshop*	1 Day	2 yrs
Personal Centre Training	Workshop*	1 Day	2 yrs

Table 2 ERMS Training

UIC/4 maintains records of personnel having received training and who are eligible for participation in emergency response teams.

7.4 System Testing

A key element in maintaining efficiency is systematic exercising of personnel, procedures and resources. Target locations and objectives for each exercise are selected with consideration of:

- Higher risk scenarios identified in HSE Cases and risk assessments
- Testing specific elements of the ERMS structure or organisation
- Training and familiarising emergency teams in emergency response management
- Coverage of PDO operational areas and activities

At the local level the Area Co-ordinators are responsible for ensuring the competence of their staff through drills and area exercises. These drills and exercises are focussed at the training of staff and are documented in Area HSE Plans.

At the corporate level UIC is responsible for testing the ERMS through major exercises. These are also included in corporate HSE planning. Feedback and learning from exercises are widely disseminated, and action items are tracked via the Fountain Tracking database which is the Shell global system for managing HSSE (Health, Safety, Security and Environment).

8 Audit and Review

8.1 Audit

The Emergency Response Management System is audited on a systematic basis by internal PDO led audits, external ISO 14001 and Shell Group led audits. Programmed audits and the target locations / subjects may be referenced in the PDO Corporate HSE Plans.

8.2 Review

The PDO HSE Management System is reviewed annually and emergency response forms part of this review process.

Additionally, the Emergency Response Management System is reviewed in detail every two years against the elements of the HSE MS that dictate the structure of this document:

- Leadership and commitment
- Policy and objectives
- Organisation, responsibilities, resources, standards and documents
- Hazards and effects management
- Planning and procedures
- Implementation, Monitoring & Corrective action
- Audit & Review

The review is done by a team comprising of the HSE, Corporate Emergency & Security Manager, Corporate Emergency Response Coordinator, participants from the line and external consultants as required. Results and recommendations arising out of the review are presented to the Emergency Response and Security Steering Committee and agreed action items are tracked for close out.

Appendix A: Document Change

Requests for changes to this document shall be made in writing to the document custodian, who will obtain the approval of the document Owner.

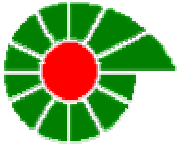
Users of this document wishing to make a change or a correction are requested to use the Change Proposal form below and forward this to the document custodian who will evaluate the proposal for inclusion in the document. Alternatively the same information may be sent to the document custodian by electronic mail

Change Proposal Form	Doc. No:
From :	
To : UIC/4	
Purpose of Revision:	<input type="checkbox"/> Update Existing Data
	<input type="checkbox"/> Delete Obsolete Data
	<input type="checkbox"/> Insert New Data
	<input type="checkbox"/> Other
Proposed Change:	
Continue on other sheet if necessary.	
Signed, Change Proposal Originator:	
Approved for immediate implementation*	
Approved for implementation at next revision*	
Rejected for the following reason:*	
* Delete as Appropriate	
Signed, Document Owner	
Implemented	
Signed, Document Custodian:	

Appendix B: Glossary of Terms, Definitions and Abbreviations

<i>Accountability:</i>	Responsibility before the law or before the Company for any specified asset or action. Accountability can not be delegated, although others may be made responsible to the accountable party for all or parts of the asset or action.
<i>Asset Manager:</i>	The person accorded single point accountability for management of a defined asset or group of assets.
<i>Business resumption plan:</i>	Specific contingency plan for critical assets or activities designed to reinstate operations.
<i>CECC:</i>	Corporate Emergency Co-ordination Centre
<i>CCR:</i>	Central Control Room
<i>DD:</i>	Duty Director, the emergency manager in charge of the Corporate Emergency Coordination Centre Team
<i>ER</i>	<i>Emergency Response</i>
<i>ERMS:</i>	Emergency Response Management System
<i>ETO:</i>	Emergency Telephone Operator
<i>Hazard:</i>	Anything that has the potential to do damage.
<i>HC</i>	<i>Hydrocarbon</i>
<i>Incident:</i>	An unplanned event or chain of events, which has, or could have, caused injury or illness and / or damage (loss) to people, assets, the environment, or reputation.
<i>Integrity:</i>	The state of an asset where it can safely be used and fulfil its intended function - where it has not in any way been damaged.
<i>Interior:</i>	All areas, facilities and resources in the PDO concession(s).
<i>LEBC:</i>	Local Emergency Base Controller; the emergency manager in the operational area, normally the Area Co-ordinator.
<i>LECC:</i>	Local Emergency Control Centre
<i>MaF</i>	Mina Al Fahal
<i>MDC</i>	Managing Director's Committee
<i>OSC:</i>	On Scene Commander
<i>OU</i>	<i>Operating units</i>
<i>Risk:</i>	The combination of the probability of release of a hazard and the severity of the consequence of that release.
<i>SET:</i>	Security Evaluation Team

Appendix C: Managing Director's Committee Terms of Reference for ERMS/Security



Petroleum Development Oman L.L.C.

Managing Director's Committee Terms of Reference for ERMS & Security (January 2006)

Objectives: To approve Emergency Response (ER) and Security policies, directives, proposals and initiatives so as to achieve a consistent approach throughout Company and Contractor operations, and continuous improvement in their combined performance.

Responsibilities:

- To review performance against Corporate ER and Security plans.
- To proactively identify significant ER and Security issues, and assess their impact on staff and business opportunities.
- To ensure that the organization, resources, systems, procedures and plans for ER and Security in PDO are always commensurate with the environment in which the Company operates.
- To provide steer for the resolution of Emergency Response and Security issues arising from various sources, such as incidents, Emergency Response exercises, audits and reviews.
- To approve ER and Security policies.

Accountability: The Managing Director's Committee (MDC).

Inputs:

- Proposed solutions to corporate ER and Security issues, which may arise from any number of sources such as incidents, audits, reviews, Contractor meetings and workshops, ER exercises, feedback from the organization, etc.
- Draft ER and Security policies, guidelines, etc.
- Lateral learning from other OUs and external sources.

Membership: **Chairman:** MD **Vice-Chairman:** DMD

Members: FD, OND, OSD, XD, HD, GD, UID, UWD, ED, UPD, UPCD, UEOD, and MSEM.

Secretary: UIC

A member or his designate shall attend. At least six members/designates (incl. Chairman & Secretary) are required to form a quorum.

Other representatives from the Line and CFDHs will attend when appropriate to cover specific issues. Other parties (PDO or Contractor) may also be requested to attend when appropriate.

Meetings: Meetings will be held quarterly. Pre-reading materials will be issued five days ahead of meeting.

Deliverables:

- Minutes of meetings
- Approved ER and Security policies, procedures, plans and proposals.
- Consistent implementation of corporate ER and Security policies, procedures and plans.
- Clear recommendations on ways and means to integrate ER and Security policies into Company business and Contractor operations.